What is claimed

1.   Method of detecting the reliability of a field of movement vectors of one image in a sequence of video images, characterized in that it includes a stage of calculating a stability parameter Det_Stab(t) for the field, on the basis of a comparison (4), over two successive images, of the number of occurrences of the majority vectors of the movement-vectors fields of each of these images, a field being defined as stable if the variation in the number of occurrences lies within a predefined bracket, and a stage of deciding on reliability (7) on the basis of this stability parameter.

2.   Method according to Claim 1, characterized in that it also includes a stage of calculating a disturbance parameter Det_Dist(t) for the field, on the basis of a comparison (5), over two successive images, of the number of occurrences of the movement vector corresponding to the majority vector of one of the two images (2, 3), a field being defined as not disturbed if the variation in the number of occurrences lies within a predefined bracket, and in that the decision stage (7) is also based on this disturbance parameter.

3.   Method according to Claim 1, characterized in that it also includes a stage of calculating a disturbance parameter Det_Dist(t) for the field, a field being defined as not disturbed if the variation in the number of occurrences of the zero vector in the movement-vectors field, between two successive images, lies within a predefined bracket, and in that the decision stage (7) is also based on this disturbance parameter.

4.   Method according to Claim 1, characterized in that it includes a stage of calculating, for an image (t), a time-domain stability state Stabl_Stat(t) (6) on

the basis of the stability parameters Det_Stab(t) for this image and of P-1 preceding images (4), a state being declared as stable if a minimum number Q of stable fields is detected among these P images, P and Q being integers such that P > Q, and in that the decision stage (7) is also based on this stability state.

5.   Method according to Claim 2, characterized in that it includes, for an image (t), a stage of calculating a disturbance state Dist_Stat(t) (6), on the basis of the disturbance parameters Det_Dist (t) for this image and for the M-1 preceding images (5), a state being declared to be disturbed or not disturbed depending on whether a minimum number L of non-disturbed fields are detected among these M images, M and L being integers such that M > L, and in that the decision stage (7) is also based on this disturbance state.

6.   Method according to Claim 5, characterized in that it also includes a stage of calculating a stability parameter Det_Stab(t) for the field, on the basis of a comparison (4), over two successive images, of the number of occurrences of the majority vectors of the movement-vectors fields of each of these images, a field being defined as stable if the variation in the number of occurrences lies within a predefined bracket, and in that a vector field is declared to be reliable if a stable field and a non-disturbed state are detected.

7.   Method according to Claim 4, characterized in that it also includes, for an image (t), a stage of calculating a disturbance parameter Det_Dist(t) for the field, on the basis of a comparison (5), over two successive images, of the number of occurrences of the movement vector corresponding to the majority vector of one of the two images (2, 3), a field being defined as

not disturbed if the variation in the number of occurrences lies within a predefined bracket, as well as a stage of calculating a disturbance state Dist_Stat(t) (6) on the basis of the disturbance parameters Det_Dist(t) for this image and for the M-1 preceding images (5), a state being declared as disturbed or not disturbed depending on whether a minimum number Q of non-disturbed fields are detected or not detected among these M images, M and Q being strictly positive integers, and in that a vector field is declared to be reliable if a stable field, a disturbed and stable state are detected.

8.   Method according to Claim 1, 2 or 3, characterized in that the occurrences of the vectors are relative to the value of the horizontal component of these vectors.

9.   Method according to Claim 1, characterized in that the decision stage (7) also takes into account a parameter for the detection of saturation of the movement-vectors field.

10.   Method according to Claim 1, characterized in that the decision stage (7) also takes into account a parameter for detection of a change of scene in the video sequence.

11.   Device for detecting reliability of a movement-vector field of one image from an image sequence, characterized in that it includes:

        - means (4) for comparing, over two successive images, the number of occurrences of the majority vectors of the movement-vectors fields of each of these images,

        - means for calculating a stability parameter Det_Stab(t) for the field, on the basis of the comparison result, a field being defined as stable if the variation in the number of occurrences lies within a predefined bracket,

- and means for deciding on reliability (7) on the basis of this stability parameter.

12.   Device according to Claim 11, characterized in that it also includes:

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- means (4) for comparing, over two successive images, the number of occurrences of the movement vector corresponding to the majority vector of one of the two images,

- means for calculating a disturbance parameter
10   Det_Dist(t) for the field, a field being defined as not disturbed if the variation in the number of occurrences lies within a predefined bracket,

- the means for deciding on reliability (7) also taking this disturbance parameter into account.

15   13.   Frequency converter, characterized in that it comprises a device according to Claim 11.

14.   Video coder, characterized in that it comprises a detection device according to Claim 11.